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AMENDMENTS TO THE CLAIMS

Please amend claims 1-55. The following list of claims will replace all prior versions and lists of claims in the application.

List of Claims:

- 1. (Currently amended) A compound comprising a specifier (V) linked to two or more of the same or different leaving groups (Z) via a self-eliminating multiple release spacer or spacer system, which wherein the compound upon a single activation step releases at least two leaving groups, and said activation step being the removal or transformation of the specifier.
- 2. (Currently amended) A<u>The</u> compound according to claim 1 comprising two or more self-eliminating multiple release spacers.
- 3. (Currently amended) A<u>The</u> compound according to claim 1-or 2 comprising a self-eliminating multiple release spacer system incorporating two or more generations of self-eliminating multiple release spacers in the form of a dendritic structure.
- 4. (Currently amended) A<u>The</u> compound according to claim 1, 2 or 3 having a formula selected from

$$\begin{aligned} \mathbf{V} - (\mathbf{W} -)_{\mathbf{w}} (\mathbf{X} -)_{\mathbf{x}} \mathbf{C} ((\mathbf{A} -)_{\mathbf{a}} \mathbf{Z})_{\mathbf{c}}, \\ \mathbf{V} - (\mathbf{W} -)_{\mathbf{w}} (\mathbf{X} -)_{\mathbf{x}} \mathbf{C} (\mathbf{D} ((\mathbf{A} -)_{\mathbf{a}} \mathbf{Z})_{\mathbf{d}})_{\mathbf{c}}, \\ \mathbf{V} - (\mathbf{W} -)_{\mathbf{w}} (\mathbf{X} -)_{\mathbf{x}} \mathbf{C} (\mathbf{D} (\mathbf{E} ((\mathbf{A} -)_{\mathbf{a}} \mathbf{Z})_{\mathbf{e}})_{\mathbf{d}})_{\mathbf{c}}, \text{ and} \\ \mathbf{V} - (\mathbf{W} -)_{\mathbf{w}} (\mathbf{X} -)_{\mathbf{x}} \mathbf{C} (\mathbf{D} (\mathbf{E} (\mathbf{F} ((\mathbf{A} -)_{\mathbf{a}} \mathbf{Z})_{\mathbf{f}})_{\mathbf{e}})_{\mathbf{d}})_{\mathbf{c}}, \\ \text{wherein:} \end{aligned}$$

V is selected from [O] and a specifier which is removed or transformed by a chemical, photochemical, physical, biological, or enzymatic activation, optionally after prior binding to a receptor;

$$(W-)_{w}(X-)_{x}C((A-)_{a})_{c}$$

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$$(W-)_{w}(X-)_{x}C(D((A-)_{a})_{d})_{c}$$

$$(W-)_w(X-)_xC(D(E((A-)_a)_e)_d)_c$$
, and

$$(W_{-})_{w}(X_{-})_{x}C(D(E(F((A_{-})_{a})_{f})_{e})_{d})_{c}$$

independently are self-eliminating multiple release spacers or spacer systems;

W and X are each a single release 1,(4+2n) electronic cascade spacer, being the same or different;

A is a cyclization elimination spacer;

C, D, E, and F are each a self-eliminating multiple release spacer or spacer system that upon activation can maximally release c, d, e, and f leaving groups, respectively;

each **Z** is independently a leaving group or H or OH or a reactive moiety; a is 0 or 1;

c, d, e, and f are independently an integer from 2 (included) to 24 (included); w and x are independently an integer from 0 (included) to 5 (included); and n is an integer of 0 (included) to 10 (included).

5. (Currently amended) A<u>The</u> compound according to any of the preceding claimsclaim 4, wherein the self-elimination multiple release spacers or spacer systems **C**, **D**, **E**, and **F** are independently selected from compounds having the formula

$$\mathbf{G}(\mathbf{P})_{g}(\mathbf{H}(\mathbf{P})_{h}(\mathbf{I}(\mathbf{P})_{i})_{h'})_{g'}$$

$$-\mathbf{B}$$

$$\mathbf{J}(\mathbf{P})_{j}(\mathbf{K}(\mathbf{P})_{k}(\mathbf{L}(\mathbf{P})_{l})_{k'})_{j'}$$

$$\mathbf{M}(\mathbf{P})_{m}(\mathbf{N}(\mathbf{P})_{n}(\mathbf{O}(\mathbf{P})_{o})_{n'})_{m'}$$

Wherein wherein

B is selected from NR¹, O, and S;

P is
$$C(R^2)(R^3)$$
Q-(**W**-)_w(**X**-)_x; wherein

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Q has no meaning or is -O-CO-;

W and X are each a single release 1,(4+2n) electronic cascade spacer, being the same or different;

G, H, I, J, K, L, M, N, and O are independently selected from compounds having the formula:

$$R^4$$
 or R^5 or R^4

wherein R^1 , R^2 , R^3 , R^4 , and R^5 independently represent H, \underline{a} C_{1-6} alkyl, \underline{a} C_{3-20} heterocyclyl, \underline{a} C_{5-20} aryl, \underline{a} C_{1-6} alkoxy, hydroxy (OH), amino (NH₂), mono-substituted amino (NR_xH), di-substituted amino (NR_x 1 R_x 2), nitro (NO₂), halogen, CF₃, CN, CONH₂, SO₂Me, CONHMe, \underline{a} cyclic C_{1-5} alkylamino, imidazolyl, \underline{a} C_{1-6} alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy (COOH), carboxylate (COOR_x), sulphoxy (S(=O)₂OH), sulphonate (S(=O)₂OR_x), sulphonyl (S(=O)₂R_x), sulphixy (S(=O)OH), sulphinate (S(=O)OR_x), sulphinyl (S(=O)R_x), phosphonooxy (OP(=O)(OH)₂), andor phosphate (OP(=O)(OR_x)₂), wherein R_x , R_x are independently selected from a C_{1-6} alkyl group, a C_{3-20} heterocyclyl group or and a C_{5-20} aryl group, or two or more of the substituents R^1 , R^2 , R^3 , R^4 , and R^5 optionally being connected to one another to form one or more aliphatic or aromatic cyclic structures,

or

G, J, and M may also be independently are selected from the group of P and hydrogen with the proviso that if two of G, J, and M are hydrogen, the remaining group must be

or be

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and at the same time be conjugated to

g, h, i, j, k, l, m, n, o, h', g', k', j', n', m' are independently 0, 1, or 2 with the provisos that

if G = hydrogen or P, g, h, i, h', and g' all equal 0;

if J = hydrogen or P, j, k, l, k', and j' all equal 0;

if M = hydrogen or P, m, n, o, n', and m' all equal 0;

if G, H, I, J, K, L, M, N, or O is

$$R^4$$
 or R^5 or R^5

then g + g' = 1, h + h' = 1, i = 1, j + j' = 1, k + k' = 1, l = 1, m + m' = 1, n + n' = 1, or o = 1, respectively;

if G, H, I, J, K, L, M, N, or O is

then g + g' = 2, h + h' = 2, i = 2, j + j' = 2, k + k' = 2, l = 2, m + m' = 2, n + n' = 2, or o = 1, respectively;

if g' = 0 and G is not hydrogen or P, then h, h', and i equal 0 and g > 0;

if g = 0 and G is not hydrogen or P, then g' > 0;

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if g' > 0 and h' = 0, then i = 0 and h > 0;

if g' > 0 and h = 0, then h' > 0 and i > 0;

if j' = 0 and J is not hydrogen or P, then k, k', and l equal 0 and j > 0;

if j = 0 and J is not hydrogen or P, then j' > 0;

if j' > 0 and k' = 0, then l = 0 and k > 0;

if j' > 0 and k = 0, then k' > 0 and l > 0;

if m' = 0 and M is not hydrogen or P, then n, n', and o equal 0 and m > 0;

if m = 0 and M is not hydrogen or P, then m' > 0;

if m' > 0 and n' = 0, then o = 0 and n > 0;

if m' > 0 and n = 0, then n' > 0 and o > 0;

w and x are independently an integer from 0 (included) to 5 (included);

with the proviso that

if the compound contains only C and no D, no E, and no F are present, and $B = NR^1$,

and G and M are H, and g, h, i, h', g', k, l, k', l', m, n, o, n', and m' are 0, and J = 0, and j = 0, and Q = 0. CO-, and M are M are

6. (Currently amended) AThe compound according to any of the preceding claims claim 4, wherein the 1,(4+2n) electronic cascade spacers W and X are independently selected from compounds having the formula

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$$-\mathbf{B} - \mathbf{Q'} - (\mathbf{T} -)_{t}(\mathbf{U} -)_{u}(\mathbf{Y} -)_{y}\mathbf{P}$$

$$Q' = -R^5C = CR^6$$
-, S, O, NR⁵, -R⁵C=N-, or -N=CR⁵-
 $B = NR^7$, O, S
 $P = C(R^3)(R^4)Q$

wherein

Q has no meaning or is -O-CO-;

t, u, and y are independently an integer of 0 to 5; and

T, U, and Y are independently selected from compounds having the formula:

$$R^8$$
 or R^9 or R^9

wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , and R^9 independently represent H, \underline{a} C_{1-6} alkyl, \underline{a} C_{3-20} heterocyclyl, \underline{a} C_{5-20} aryl, \underline{a} C_{1-6} alkoxy, hydroxy (OH), amino (NH₂), mono-substituted amino (NR_xH), di-substituted amino (NR_x¹R_x²), nitro (NO₂), halogen, CF₃, CN, CONH₂, SO₂Me, CONHMe, \underline{a} cyclic C_{1-5} alkylamino, imidazolyl, \underline{a} C_{1-6} alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy (COOH), carboxylate (COOR_x), sulphoxy (S(=O)₂OH), sulphonate (S(=O)₂OR_x), sulphonyl (S(=O)₂R_x), sulphixy (S(=O)OH), sulphinate (S(=O)OR_x), sulphinyl (S(=O)R_x), phosphonooxy (OP(=O)(OH)₂), andor phosphate (OP(=O)(OR_x)₂), wherein R_x , R_x and R_x are independently selected from a C_{1-6} alkyl group, a C_{3-20} heterocyclyl group or and a C_{5-20} aryl group, or two or more of the substituents R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , or R^9 optionally being connected to one another to form one or more aliphatic or aromatic cyclic structures.

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7. (Currently amended) A<u>The</u> compound according to any of the preceding claims claim

4, wherein the leaving groups Z are linked to the self-eliminating multiple release spacer or

spacer system via an O, S, or aromatic N of the leaving group.

8. (Currently amended) A<u>The</u> compound according to any of the preceding claimsclaim

4, wherein the leaving groups Z are linked to the self-eliminating multiple release spacer or

spacer system via an aliphatic N and wherein at least one multiple release spacer or spacer

system of either generation C, D (if present), E (if present), or F (if present) is a phenol- or

thiophenol-based multiple release spacer or spacer system, meaning that

i) $\mathbf{B} = \mathbf{O}$ or S for at least one multiple release spacer in said generation, or

ii) when $\mathbf{B} = \mathbf{N}$ for all multiple release spacers in said generation, at least one single

release spacer is connected to at least two branches of at least one multiple release spacer in said

generation, and $\mathbf{B} = \mathbf{O}$ or S for at least two of said single release spacers.

9. (Currently amended) AThe compound according to claim 8, wherein $\mathbf{B} = \mathbf{O}$ or \mathbf{S} for

all multiple release spacers or spacer systems in said generation.

10. (Currently amended) AThe compound according to claims 8-or 9, wherein the phenol-

or thiophenol-based multiple release spacers are connected to either A or Z or S, wherein S is as

defined in claim 26 has no meaning or is H, OH, or a reactive moiety that allows for coupling the

multiple release spacer system to leaving groups Z to afford compounds independently selected

from:

 $V-(W-)_w(X-)_xC((A-)_aZ)_c$

 $V-(W-)_w(X-)_xC(D((A-)_aZ)_d)_c$

 $V-(W-)_w(X-)_xC(D(E((A-)_aZ)_e)_d)_{c_x}$ and

 $V-(W-)_w(X-)_xC(D(E(F((A-)_aZ)_f)_e)_d)_c$.

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11. (Currently amended) AThe compound according to any of the preceding claims claim 4, wherein the ω -amino aminocarbonyl cyclization elimination spacer A is a compound having the formula:

wherein:

a is an integer of 0 or 1; and

b is an integer of 0 or 1; and

c is an integer of 0 or 1; provided that

a + b + c = 2 or 3;

and wherein- R^1 and R^2 independently represent H, C_{1-6} alkyl, said alkyl being optionally substituted with one or more of the following groups: hydroxy (OH), ether (OR_x), amino (NH₂), mono-substituted amino (NR_xH), di-substituted amino (NR_x¹R_x²), nitro (NO₂), halogen, CF₃, CN, CONH₂, SO₂Me, CONHMe, cyclic C_{1-5} alkylamino, imidazolyl, C_{1-6} alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy (COOH), carboxylate (COOR_x), sulphoxy (S(=O)₂OH), sulphonate (S(=O)₂OR_x), sulphoxyl (S(=O)₂R_x), sulphixyl (S(=O)OH), sulphinate (S(=O)OR_x), sulphinyl (S(=O)R_x), phosphonooxyl (OP(=O)(OH)₂), and phosphate (OP(=O)(OR_x)₂), where R_x, R_x¹ and R_x² are selected from a C_{1-6} alkyl group, a C_{3-20} heterocyclyl group orand a C_{5-20} aryl group; and

 R^3 , R^4 , R^5 , R^6 , R^7 , and R^8 independently represent H, C_{1-6} alkyl, C_{3-20} heterocyclyl, C_{5-20} aryl, C_{1-6} alkoxy, hydroxy (OH), amino (NH₂), mono-substituted amino (NR_xH), disubstituted amino (NR_x 1 R_x 2), nitro (NO₂), halogen, CF₃, CN, CONH₂, SO₂Me, CONHMe, cyclic C_{1-5} alkylamino, imidazolyl, C_{1-6} alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy (COOH), carboxylate (COOR_x), sulphoxy (S(=O)₂OH), sulphonate (S(=O)₂OR_x), sulphonyl (S(=O)₂R_x), sulphixy (S(=O)OH), sulphinate (S(=O)OR_x), sulphinyl (S(=O)R_x), phosphonooxy (OP(=O)(OH)₂), andor phosphate (OP(=O)(OR_x)₂), where R_x, R_x 1 and

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 R_x^2 are selected from a C_{1-6} alkyl group, a C_{3-20} heterocyclyl group $\frac{1}{6}$ aryl group; $\frac{1}{6}$ and $\frac{1}{6}$ aryl group;

wherein-R¹, R², R³, R⁴, R⁵, R⁶, R⁷, and R⁸ can be a part of one or more aliphatic or aromatic cyclic structures, two or more of the substituents R¹, R², R³, R⁴, R⁵, R⁶, R⁷, or R⁸ optionally being connected to one another to form one or more aliphatic or aromatic cyclic structures.

- 12. (Currently amended) A<u>The</u> compound according to any of the preceding claims claim $\underline{\mathbf{4}}$, wherein group \mathbf{A} is an ω -amino aminocarbonyl cyclization spacer, and \mathbf{Z} is a moiety coupled via its hydroxyl group to \mathbf{A} .
- 13. (Currently amended) AThe compound according to any of the preceding claims $\underline{\text{claim}}$ 4, wherein w + x > 0.
- 14. (Currently amended) A<u>The</u> compound according to any of the preceding claims claim 4, wherein

$$(\mathbf{W}-)_{\mathbf{w}}(\mathbf{X}-)_{\mathbf{x}}\mathbf{C}_{\mathbf{c}},$$

$$(\mathbf{W}-)_{\mathbf{w}}(\mathbf{X}-)_{\mathbf{x}}\mathbf{C}(\mathbf{D}_{\mathbf{d}})_{\mathbf{c}},$$

$$(W-)_w(X-)_xC(D(E_e)_d)_c$$
 or

$$(\mathbf{W}-)_{\mathbf{w}}(\mathbf{X}-)_{\mathbf{x}}\mathbf{C}(\mathbf{D}(\mathbf{E}(\mathbf{F}_{\mathbf{f}})_{\mathbf{e}})_{\mathbf{d}})_{\mathbf{c}}$$

is selected from the group consisting of

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and from the compounds depicted above wherein single release 1,6-elimination p-aminobenzyloxycarbonyl spacer(s) are replaced by single release 1,8-elimination p-aminocinnamyloxycarbonyl spacer(s).

 $R^1 = O \text{ or } OC(O)O$

- 15. (Currently amended) A<u>The</u> compound according to claim 14, which the compound further comprises ing ω amino aminocarbonyl cyclization elimination spacers A.
- 16. (Currently amended) A<u>The</u> compound according to any of the preceding claims claim 1, wherein the specifier V contains a substrate that can be cleaved by plasmin, one of the cathepsins, cathepsin B, β-glucuronidase, prostate-specific antigen (PSA), urokinase-type plasminogen activator (u-PA), a member of the family of matrix metalloproteinases, or wherein the specifier V is [O] or contains a nitro-(hetero)aromatic moiety that can be removed or transformed by reduction under hypoxic conditions or by reduction by a nitroreductase.

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17. (Currently amended) A<u>The</u> compound according to any of the preceding claims claim 1, wherein **Z** is selected from an antibiotic, an anti-inflammatory agent, an anti-viral agent, and preferably an anticancer agent.

18. (Currently amended) The compound of claim 17, wherein **Z** is selected from

(hydroxyl containing cytotoxic compounds) etoposide, combrestatin, camptothecin, irinotecan (CPT-11), SN-38, topotecan, 9-aminocamptothecin, 9-nitrocamptothecin, 10-hydroxycamptothecin, GG211, lurtotecan, paclitaxel, docetaxel, esperamycin, 1,8-dihydroxy-bicyclo[7.3.1]trideca-4-ene-2,6-diyne-13-one, anguidine, doxorubicin, morpholine-doxorubicin, N-(5,5-diacetoxypentyl) doxorubicin, daunorubicin, epirubicin, idarubicin, mitoxantrone, vincristine, vinblastine, tallysomycin, bleomycin, 4-bis(2-chloroethyl)aminophenol, 4-bis(2-fluoroethyl)aminophenol, and derivatives thereof,

(sulfhydryl containing compounds) esperamicin and 6-mercaptopurine, and derivatives thereof,

(carboxyl containing compounds) methotrexate, aminopterin, camptothecin (ringopened form of the lactone), chlorambucil, melphalan, butyric acid and retinoic acid, and derivatives thereof, and

(aziridine amino containing or aromatic amino containing compounds) mitomycin C, mitomycin A, an anthracycline derivative containing an amine functionality with sufficient leaving group ability, mitoxantrone, 9-amino camptothecin, methotrexate, aminopterin, tallysomycin, bleomycin, actinomycin, N,N-bis(2-chloroethyl)-p-phenylenediamine, N,N-bis(2-fluoroethyl)-p-phenylenediamine, deoxycytidine, cytosine arabinoside, gemcitabine, and derivatives thereof, and

(aliphatic amino containing compounds) daunorubicin, doxorubicin, epirubicin, idarubicin, N-(5,5-diacetoxypentyl)doxorubicin, an anthracycline, N⁸-acetyl spermidine, 1-(2-chloroethyl)-1,2-dimethanesulfonyl hydrazine, or derivatives thereof.

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19. (Currently amended) A<u>The</u> compound according to claim 18, wherein **Z** represents paclitaxel, docetaxel, or a derivative thereof, which is coupled to the self-eliminating multiple release spacer or spacer system via its 2'-hydroxyl group.

- 20. (Currently amended) A<u>The</u> compound according to claim 18, wherein **Z** represents camptothecin, irinotecan (CPT-11), SN-38, topotecan, 9-aminocamptothecin, 9-nitrocamptothecin, 10-hydroxycamptothecin, GG211, lurtotecan, or a derivative thereof, which is coupled to the self-eliminating multiple release spacer or spacer system via its 20-hydroxyl group.
- 21. (Currently amended) A<u>The</u> compound according to claim 18, wherein **Z** represents SN-38, topotecan, 10-hydroxycamptothecin, etoposide, 4-bis(2-chloroethyl)aminophenol, 4-bis(2-fluoroethyl)aminophenol, or a derivative thereof, which is coupled to the self-eliminating multiple release spacer or spacer system via its phenolic hydroxyl group.
- 22. (Currently amended) AThe compound according to claim 18, wherein **Z** represents 9-aminocamptothecin, N,N-bis(2-chloroethyl)-p-phenylenediamine, N,N-bis(2-fluoroethyl)-p-phenylenediamine, or a derivative thereof, which is coupled to the self-eliminating multiple release spacer or spacer system via its aromatic primary amine group.
- 23. (Currently amended) AThe compound according to claim 18, wherein Z represents daunorubicin, doxorubicin, epirubicin, idarubicin, N-(5,5-diacetoxypentyl)doxorubicin, an anthracycline, N⁸-acetyl spermidine, 1-(2-chloroethyl)-1,2-dimethanesulfonyl hydrazine, or derivatives thereof, which is coupled to the self-eliminating multiple release spacer or spacer system via its primary aliphatic amino group; and-wherein

at least one multiple release spacer or spacer system of either generation C, D (if present), E (if present), or F (if present) is a phenol- or thiophenol-based multiple release spacer or spacer system, meaning that

i) $\mathbf{B} = \mathbf{O}$ or S for at least one multiple release spacer in said generation, or

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ii) when $\mathbf{B} = \mathbf{N}$ for all multiple release spacers in said generation, at least one single release spacer is connected to at least two branches of at least one multiple release spacer in said generation, and $\mathbf{B} = \mathbf{O}$ or S for at least two of said single release spacers.

- 24. (Currently amended) A $\underline{\text{The}}$ compound according to claim 23, wherein $\mathbf{B} = \mathbf{O}$ or \mathbf{S} for all multiple release spacers or spacer systems in said generation.
- 25. (Currently amended) A<u>The</u> compound according to claims 23-or 24, wherein the phenol- or thiophenol-based multiple release spacers are connected to either A or Z or S, wherein S is as defined in claim 26-has no meaning or is H, OH, or a reactive moiety that allows for coupling the multiple release spacer system to leaving groups Z to afford compounds independently selected from:

 $V-(W-)_w(X-)_xC((A-)_aZ)_{c_x}$

 $V-(W-)_w(X-)_xC(D((A-)_aZ)_d)_c$

 $V-(W-)_w(X-)_xC(D(E((A-)_aZ)_e)_d)_c$, and

 $V-(W-)_w(X-)_xC(D(E(F((A-)_aZ)_f)_e)_d)_c$.

26. (Currently amended) A compound having a formula selected from

 $V-(W-)_{w}(X-)_{x}C((A-)_{a}S)_{c}$

 $V-(W-)_{w}(X-)_{x}C(D((A-)_{a}S)_{d})_{c}$

 $V-(W-)_w(X-)_xC(D(E((A-)_aS)_e)_d)_c$, and

 $V-(W-)_w(X-)_xC(D(E(F((A-)_aS)_f)_e)_d)_c$

wherein:

V, W, X, C, D, E, F, A, w, x, c, d, e, f, and a are defined as in the preceding claims and V is selected from [O] and a specifier which is removed or transformed by a chemical, photochemical, physical, biological, or enzymatic activation, optionally after prior binding to a receptor;

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 $(\mathbf{W}-)_{\mathbf{w}}(\mathbf{X}-)_{\mathbf{x}}\mathbf{C}((\mathbf{A}-)_{\mathbf{a}})_{\mathbf{c}},$

 $(\mathbf{W}-)_{\mathbf{w}}(\mathbf{X}-)_{\mathbf{x}}\mathbf{C}(\mathbf{D}((\mathbf{A}-)_{\mathbf{a}})_{\mathbf{d}})_{\mathbf{c}}$

 $(W-)_w(X-)_xC(D(E((A-)_a)_e)_d)_c$, and

 $(W-)_{w}(X-)_{x}C(D(E(F((A-)_{a})_{f})_{e})_{d})_{c}$

independently are self-eliminating multiple release spacers or spacer systems;

W and X are each a single release 1,(4+2n) electronic cascade spacer, being the same or different;

A is a cyclization elimination spacer;

C, D, E, and F independently are a self-eliminating multiple release spacer or spacer system that upon activation can maximally release c, d, e, and f leaving groups, respectively:

a is 0 or 1;

c, d, e, and f are independently an integer from 2 (included) to 24 (included);

w and x are independently an integer from 0 (included) to 5 (included);

n is an integer of 0 (included) to 10 (included);

each S independently has no meaning or is H, OH, or a reactive moiety that allows for coupling the multiple release spacer system to leaving groups Z, which may be the same or different, to afford compounds

 $V-(W-)_{w}(X-)_{x}C((A-)_{a}Z)_{c}$

 $V-(W-)_{w}(X-)_{x}C(D((A-)_{a}Z)_{d})_{c}$

 $V-(W-)_w(X-)_xC(D(E((A-)_aZ)_e)_d)_c$, and

 $V-(W-)_w(X-)_xC(D(E(F((A-)_aZ)_f)_e)_d)_c$, respectively; and

each Z is independently a leaving group or H or OH or a reactive moiety.

27. (Currently amended) AThe compound according to claim 26, wherein the reactive moiety S is connected via a carbonyl group to the multiple release spacer or spacer system.

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28. (Currently amended) A<u>The</u> compound according to claim 27, wherein S represents *N*-succinimidyl-*N*-oxide, *p*-nitrophenoxide, pentafluorophenoxide, or chloride.

- 29. (Currently amended) A<u>The</u> compound according to claim 26, wherein S is connected to the methylene group of the multiple release spacer or spacer system.
- 30. (Currently amended) A<u>The</u> compound according to claim 29, wherein S represents chloride, bromide, *p*-toluenesulfonate, trifluoromethylsulfonate, or methylsulfonate.
- 31. (Currently amended) A<u>The</u> compound according to any of the preceding claims claim 1, wherein the specifier V is a tripeptide.
- 32. (Currently amended) A<u>The</u> compound according to claim 31, wherein the tripeptide is linked via its C-terminus to the self-eliminating multiple release spacer or spacer system.
- 33. (Currently amended) The compound of claim 32, wherein the C-terminal amino acid residue of the tripeptide is selected from arginine and lysine, the middle amino acid residue of the tripeptide is selected from alanine, valine, leucine, isoleucine, methionine, phenylalanine, cyclohexylglycine, tryptophan and proline, and the N-terminal amino acid residue of the tripeptide is selected from a D-amino acid residue and a protected L-amino acid residue including protected glycine.
- 34. (Currently amended) A<u>The</u> compound according to claim 33, wherein the specifier V is selected from D-alanylphenylalanyllysine, D-valylleucyllysine, D-alanylleucyllysine, D-valylphenylalanyllysine, D-valyltryptophanyllysine and D-alanyltryptophanyllysine.
- 35. (Currently amended) A<u>The</u> compound according to any of the preceding claimsclaim 1, wherein the specifier V is an amino-terminal capped peptide covalently linked via the C-terminus to the self-eliminating multiple release spacer or spacer system.
- 36. (Currently amended) The compound of according to claim 35, wherein the specifier V is selected from benzyloxycarbonylphenylalanyllysine, benzyloxycarbonylvalyllysine, D-phenylalanyllysine, benzyloxycarbonylvalylcitrulline, tert-butyl

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oxycarbonylphenylalanyllysine, benzyloxycarbonylalanylarginine, benzyloxycarbonylphenylalanyl-N-tosylarginine, 2-aminoethylthiosuccinimidopropionyllysylphenylalanyllysine, acetylphenylalanyllysine, and

aminoethyl thio succinimid opropionylly sylphenylalanylly sine, acetylphenylalanylly sine, acetylphenylly sine, acetylphenylalanylly sine, acetylphenylalanylly sine, acetylphenylly sine, acetyl

- 37. (Currently amended) A<u>The</u> compound according to any of the preceding claimsclaim 1, wherein the specifier V comprises a reactive moiety that can be used to couple said compound to a targeting moiety.
- 38. (Currently amended) A<u>The</u> compound according to claim 37, in which wherein the reactive moiety is

wherein X is eena leaving group.

- 39. (Currently amended) A<u>The</u> compound according to claim 37, in which wherein the reactive moiety is selected from an *N*-hydroxysuccinimide ester, a *p*-nitrophenyl ester, a pentafluorophenyl ester, an isothiocyanate, an isocyanate, an anhydride, an acid chloride, a sulfonyl chloride, and an aldehyde.
- 40. (Currently amended) A<u>The</u> compound according to claim 37, in which wherein the reactive moiety is a hydrazine group or an amino group.
- 41. (Currently amended) A<u>The</u> compound according to any of the preceding claimsclaim 1, wherein the specifier V comprises a targeting moiety.
- 42. (Currently amended) A<u>The</u> compound according to claim 41, in which wherein the targeting moiety is selected from the group consisting of a protein or protein fragment, an

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antibody or an antibody fragment, a receptor-binding or peptide vector moiety and a polymeric or dendritic moiety.

43. (Currently amended) A<u>The</u> compound according to any of the preceding claims claim 1 selected from the group consisting of

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and salts thereof.

44. (Currently amended) The use Use of a compound according to claim 26-30 or 37-40 having a formula selected from

 $\underline{V-(W-)_w(X-)_xC((A-)_aS)_{c_a}}$

 $\underline{V\text{-}(W\text{-})_w(X\text{-})_xC(D((A\text{-})_aS)_d)_{c_s}}$

 $V-(W-)_w(X-)_xC(D(E((A-)_aS)_e)_d)_{c_x}$ and

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$V-(W-)_w(X-)_xC(D(E(F((A-)_aS)_f)_e)_d)_{c_a}$

for the preparation of a compound of claim 4;

wherein each S independently has no meaning or is H, OH, or a reactive moiety that allows for coupling the multiple release spacer system to leaving groups Z, which may be the same or different; and

V, W, X, C, D, E, F, A, w, x, c, d, e, f, and a are as defined in claim 4.

- 45. (Currently amended) <u>A Diagnostic diagnostic</u> assay process, in which wherein a compound according to any of the preceding claims laim 1 is used.
- 46. (Currently amended) Process The diagnostic assay process according to claim 45, in which wherein the presence or amount of an enzyme is determined.
- 47. (Currently amended) <u>Process The diagnostic assay process</u> according to claim 46, in <u>whichwherein</u> the presence or amount of a protease is determined.
- 48. (Currently amended) ProcessThe diagnostic assay process according to claim 47, in which wherein the compound that is used comprises a substrate for said protease and leaving group **Z** is detected.
- 49. (Currently amended) Process The diagnostic assay process according to claim 47, in which wherein the compound that is used comprises a substrate for an enzyme, which is the product of cleavage of its pro-enzyme precursor by said protease and leaving group **Z** is detected.
- 50. (Currently amended) A composite structure comprising two or more compounds according to any of the preceding claimsclaim 1, connected with a polymeric structure.
- 51. (Currently amended) A<u>The</u> compound according to any of the preceding claims claim 1, wherein the specifier V is removed or transformed by an enzyme that is transported to the vicinity of or inside target cells or target tissue via ADEPT, PDEPT, MDEPT, VDEPT, or GDEPT.

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52. (Currently amended) Use of a compound according to any of the preceding elaimsclaim 1 for the preparation of a pharmaceutical composition for the treatment of a mammal-being in need thereof.

- 53. (Currently amended) A pharmaceutical composition comprising a compound according to any of claims 1 to 51 claim 1.
- 54. (Currently amended) A process for preparing a pharmaceutical composition comprising the step of mixing a compound according to any of claims 1 to 51 claim 1 with a pharmaceutically acceptable carrier.
- (Currently amended) A method of treating a mammal being in need thereof, whereby the method comprisesing the administration of a pharmaceutical composition according to claim 52 or 53 or is obtained according to the process of claim 54, to thea mammal in a therapeutically effective dose.